

DEVELOPMENT CO-OPERATION DIRECTORATE  
DEVELOPMENT ASSISTANCE COMMITTEE

## DAC Network on Environment and Development Co-operation

## Financing for Development in Support of Biodiversity &amp; Ecosystem Services

*This document is the first part of a scoping paper on Biodiversity and Development Co-operation, which was requested by the DAC ENVIRONET in June 2013 [DCD/DAC/ENV/M(2013)1/PROV]. The paper analyses the trends in bilateral official development assistance (ODA) targeting biodiversity, and looks at how ODA can be used to leverage and catalyse other forms of finance for biodiversity in partner countries. It was written by Anna Drutschinin and Stephanie Ockenden and has benefited from review and comment from the ENVIRONET "Friends of Biodiversity" group and other expert reviewers. This document is now being circulated for comment to the DAC ENVIRONET and, in parallel, to EPOC Working Party on Biodiversity, Water and Ecosystems. It will be prepared as an OECD Working Paper following the incorporation of any last comments. Comments are requested by 12 December 2014.*

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## ABSTRACT

A lack of sufficient finance for biodiversity and ecosystem services is an obstacle to achieving the objectives of the Convention on Biological Diversity, the Millennium Development Goals, and the post-2015 Sustainable Development Goals. Finance will need to be scaled up from all sources; public and private, domestic and international. The first part of this paper examines trends in bilateral commitments of official development assistance (ODA) drawing on data in the OECD DAC Creditor Reporting System. It shows that ODA commitments to biodiversity have, on the whole, been rising over the past decade, with an increasing focus on activities targeting synergies between biodiversity and climate change mitigation, climate change adaptation, and desertification. ODA is concentrated in activities related to environmental policy support, technical assistance and capacity building (i.e. under the general sector in the DAC CRS known as “general environmental protection”); and in the water supply and sanitation, agriculture and forestry sectors. The second part of the paper explores how development co-operation can support partner countries to generate and access other sources of biodiversity finance. While ODA is and will remain an important source of biodiversity finance for developing countries, a broad range of finance sources will be necessary to fill the biodiversity finance gap. As an illustration of magnitude, while bilateral ODA averaged USD 5.6 billion per year over 2010-12, a High Level Panel established to cost the resource requirements for achieving the 20 Aichi Targets of the 2011-2020 Strategic Plan for Biodiversity estimated that this would cost USD 150-440 billion per year. Official development finance needs to act as a catalyst and to leverage other sources of biodiversity finance by supporting the implementation of biodiversity policies and finance mechanisms in developing countries such as environmental fiscal reform, markets for green products, payments for ecosystem services and conservation trust funds. There are many examples of this already happening in practice, some of which are illustrated in this paper.

## INTRODUCTION

1. Biodiversity and ecosystem services are essential for achieving resilient and lasting development outcomes, including poverty reduction (MA, 2005; CBD, 2010; UNGA, 2012; OECD, 2013c). They provide, *inter alia*, food, fuel, and clean air and water, and they also contribute to human health, local livelihoods and economic development. The poor are disproportionately dependent on biodiversity and ecosystem services due to their inability to purchase or access substitutes (CBD, 2009; Billé et al., 2012; Roe, 2010; Roe et al., 2011; Turner et al., 2012; OECD, 2008). However, a lack of sufficient finance for biodiversity and ecosystem services is an important obstacle to achieving both biodiversity conservation and sustainable use on the one hand, and poverty reduction and sustainable development on the other, hindering progress towards meeting the objectives of the Convention on Biological Diversity (CBD), the Millennium Development Goals (MDGs), and the post-2015 Sustainable Development Goals (CBD, 2008; CBD, 2012a). Finance for biodiversity will need to be scaled up to meet these twin environment and development challenges, from public and private, domestic and international sources.

2. This paper gives an overview of the state of play of external development finance for biodiversity and ecosystem services, and of the related finance mechanisms and the commitments of developed country Parties to the Convention on Biological Diversity (CBD).<sup>1</sup> It then focuses on the role of Official Development Assistance (ODA), and provides a detailed description of the characteristics of bilateral ODA to biodiversity from 2007 to 2012. It concludes with a description of using ODA to leverage or enable other sources of finance, public and private, domestic and international, for biodiversity and ecosystem services.

### The biodiversity finance gap

3. Estimating both financial needs to achieve the existing, goals and targets for biodiversity,<sup>2</sup> and measuring and monitoring current finance flows to biodiversity from all sources, is difficult due to the lack of a comprehensive, standardised tracking and measurement system and limited data availability (OECD, 2012a). This stems *inter alia* from the fact that there is no established, consistent definition as to what constitutes spending on biodiversity (Waldron et al., 2013) and pertains to measurement and monitoring from the local to the global level.

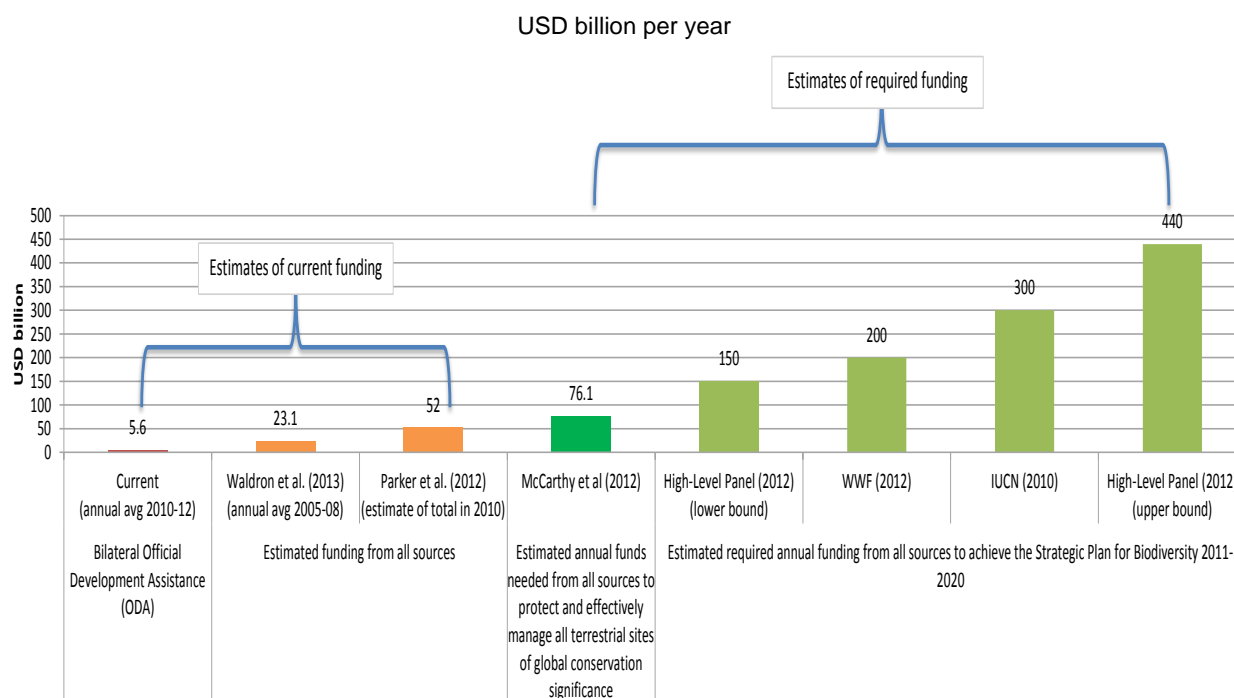
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<sup>1</sup> The authors would like to thank Jan Corfee-Morlot from the OECD ENVIRONET Secretariat and Katia Karousakis and Christina Van Winkle from the OECD Working Party on Biodiversity, Water and Ecosystem Services for their careful review. Helpful comments and illustrative examples were also provided by Austria (Elisabeth Soetz), Belgium (Luc Janssens), European Union (Arnold Jacques-De-Dixmude), France (Emmanuelle Swynghedauw), Sweden (Anders Ekblom and Karin Isaksson), the African Leadership Group on Mainstreaming Biodiversity and Development, the Institute for Sustainable Development and International Relations (Renaud Lapeyre), the International Institute for Environment and Development (Steve Bass and Dilys Roe), the Secretariat of the Convention on Biological Diversity (Markus Lehmann and Nadine Saad), United Nations Development Programme (Jamison Ervin, David Meyers and Alice Ruhweza), and United Nations Environment Programme (Ersin Esen).

<sup>2</sup> As laid out in the Strategic Plan for Biodiversity 2011-2020 and its associated 20 Aichi Targets – see CBD (2010a).

4. Measurement challenges make it difficult to put a number on the global biodiversity finance gap; nevertheless the literature provides some initial estimates. These vary widely, but all suggest that the shortfall is considerable, as is illustrated in Figure 1.

**Figure 1. Illustration of current finance flowing to biodiversity and future financing required for the biodiversity conservation and sustainable use in all countries**



Note: Each estimate of current finance to biodiversity and biodiversity finance needs have been calculated by different sources, using different methodologies and in different contexts. Therefore it is important to only use them as an illustration of a substantial funding gap to biodiversity. For more details on these sources and methods of calculation, please see Annex 2.

Source: Authors' compilation of data from: OECD DAC Statistics (2014), "Aid to Biodiversity", October 2014; Waldron et al (2013), "Targeting global conservation funding to limit immediate biodiversity declines", *PNAS*, Vol. 110., No. 29, pp. 12144-12148; Parker et al (2012), *The Little Biodiversity Finance Book*, Global Canopy Programme, Oxford; McCarthy et al (2011), "Financial Costs of meeting Global Biodiversity Conservation Targets: Current Spending and Unmet Needs", *Science*, Vol. 388, pp. 946-949; CBD (2012b), *Report of the High-Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020*, UNEP/CBD/COP/11/INF/20; IUCN (2010), *Discussion note to accompany IUCN's position paper on the Convention on Biological Diversity 9CBD Strategic Plan 2011-2020: Target 20*, Information Paper, IUCN; WWF (2012), "Governments make good progress on marine, slow on finance at Hyderabad biodiversity meet".

5. The resource requirements to achieve the 20 Aichi Targets in the 2011-2020 Strategic Plan for Biodiversity are estimated at USD 150 billion to USD 440 billion per year. These estimates come from the first report issued by a High Level Panel established to cost the resource requirements for achieving the 2011-2020 Strategic Plan for Biodiversity (CBD, 2012c)<sup>3</sup>.

<sup>3</sup> The first report of the High Level Panel cautioned that "these figures need to be treated with caution especially as the Panel is very clear that these resource requirements neither should nor could be met by biodiversity finance alone. Additionally...there is potential for considerable synergies among the [Aichi] Targets (which were not factored into these calculations). Thus, it is expected that co-ordinated action could substantially reduce the total estimate" (CBD, 2012c). However, building on more detailed evidence, the second report states that "the Panel's first phase estimates may have been rather conservative for some targets" (CBD, 2014a).

6. Two estimates of total actual resources (domestic and international) flowing to biodiversity globally were identified in the literature; Waldron et al. (2013) estimate this to have been USD 23.1 billion on average per year over 2005-08 (focusing just on public flows), and Parker et al. (2012) put the estimate at about USD 52 billion in 2010 (focusing on public but also some private flows). Bilateral ODA is one part of these resources; total bilateral biodiversity-related ODA is estimated to be in the order of USD 5.6 billion per year over 2010-12 (OECD DAC Statistics, October 2014). Other sources of finance are also being mobilised for biodiversity; public and private, domestic and international. The biodiversity financing gap illustrated in Figure 1 indicates that finance will need to be scaled up from all sources in order to achieve the Strategic Plan for Biodiversity 2011-2020.

### **The mandate for increasing biodiversity finance**

7. Developed country Parties to the Convention have committed to help developing country Parties meet the three objectives of the CBD, through, *inter alia*, the provision of finance, research and training, and technology transfer. The provision of finance is mandated by Article 20 of the Convention, and reinforced by COP 11 Decision XI/4 and at COP 12 (decision number forthcoming). Finance is also an important element of the Strategic Plan for Biodiversity 2011-2020. As part of the implementation of this Plan, Aichi Target 20 states that financial resources mobilised from all sources should be increased substantially by 2020 (CBD, 2010). Preliminary targets for resource mobilisation were adopted by Conference of the Parties to the Convention (COP) 11 Decision XI/4 (CBD, 2012b), which include doubling total biodiversity-related international finance flows to developing countries by 2015<sup>4</sup>, developing national financial plans for biodiversity, and reporting domestic biodiversity expenditures, funding needs, gaps and priorities (see Annex 3). These targets were reviewed at COP 12 in October 2014 and were reaffirmed as targets (as opposed to preliminary targets), with the possibility for their adequacy to be reviewed at COP 13. The decision on finance at COP 12 (decision number forthcoming) introduced the additional finance target of mobilising *domestic* financial resources from all sources to reduce the gap between identified needs and available resources at the domestic level.

8. Increasing and strengthening support for biodiversity and ecosystem services in developing countries extends beyond the CBD. Development co-operation providers are encouraged by the OECD and the CBD to mainstream biodiversity and ecosystem services into their development co-operation activities (OECD, 2010a; CBD, 2008; CBD, 1992), and at present biodiversity and ecosystem services look to be important elements of the post-2015 SDGs, both as a stand-alone goal and as an element integrated into other SDGs.

9. The Convention on Biodiversity and, more broadly, the development community, places emphasis not only on the quantity of development finance provided for biodiversity and ecosystem services, but also on how it is delivered. CBD COP 11 Decision XI/4 calls for the doubling of biodiversity-related international finance by 2015 to happen “through a country-driven prioritization of biodiversity within development plans in recipient countries”, which is in line with the development co-operation principles enshrined in the Paris Declaration on Aid Effectiveness (2005), the Accra Agenda for Action (2008), and the Busan Partnership for Effective Development Co-operation (2011).

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<sup>4</sup> To work towards the calculation of the baseline, countries have been asked to provide data for 2010 or the most recent year prior to that. If specific annual data is not available, countries are encouraged to provide the best estimate of an average figure for a range of years (e.g. 2006-2010) (CBD, 2012d).



## Understanding Official Development Finance

10. Official Development Finance is composed of both official development assistance (ODA) and other official flows (OOF) and these are delivered through a variety of bilateral and multilateral channels.<sup>5</sup> The OECD Development Assistance Committee (DAC) statistical system collects data on the various components of biodiversity-related official development finance. Data is reported by members of the OECD DAC, international organisations, some non-DAC countries and charities. Activity level detail is collected within the Creditor Reporting System (CRS) and made publically available online. The data is monitored, including through quality controls and reviews. The completeness of data on biodiversity finance varies across sources. Bilateral biodiversity-related ODA from OECD DAC members is systematically reported by 26 members, whereas multilateral flows and other official flows (non-concessional finance) for biodiversity are not fully identified or reported within the DAC statistical system. Work is underway to improve the coverage and quality of data on biodiversity-related bilateral and multilateral flows within the OECD system – see Annex 3 for more details.

11. This section of the paper focuses on bilateral biodiversity-related ODA commitments from OECD DAC members, since this is the subset of relevant data that is the most complete and reliable today. It presents a partial picture of total official development finance to biodiversity as it excludes multilateral ODA, other official flows and flows from non-DAC members. Multilateral ODA flows to biodiversity may be particularly important as they have been estimated by some to be more than double bilateral ODA flows to biodiversity (Miller, 2014). While external development finance flows from non-DAC countries, such as China and Brazil, are increasingly being captured by OECD DAC statistics, none of these countries are using the biodiversity Rio marker to report on biodiversity-related flows. However, biodiversity-related development finance from non-DAC members could also be important. To give an idea of the magnitude of non-DAC development co-operation, a forthcoming study by the OECD DAC Secretariat finds that 27 non-DAC countries<sup>6</sup> provided around USD 23 billion of gross development co-operation in 2013, which is more than 13% of the global total (OECD, forthcoming a).

## The role of bilateral Official Development Assistance

12. ODA is an important source of finance for developing countries, and for the poorest of countries it comprises the largest share of external finance flows for development (Stenson, 2014; Development Initiatives, 2013). In 2010-12, 4% of bilateral ODA from OECD DAC members supported biodiversity. While there are many sources of actual and potential sources of biodiversity finance (domestic and international, public and private) and ODA is a relatively small part of this (e.g. see Parker et al., 2012), some estimate that ODA (both bilateral and multilateral) is still the most significant source of finance for biodiversity in many low income and lower middle income countries (Waldron et al., 2013), since they typically allocate very little domestic budget resources to biodiversity. Biodiversity-related ODA has a critical role to play in building the capacity of partner countries to develop plans and policies to increase domestic finance for biodiversity, including private investment, and to attract, access and accommodate other forms of external finance for biodiversity.

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<sup>5</sup> Definitions and explanations are in Annex 3.

<sup>6</sup> These 27 countries comprise the 18 non-DAC member countries that report their statistics to the OECD (Bulgaria, Croatia, Cyprus, Estonia, Hungary, Israel, Kuwait, Latvia, Liechtenstein, Lithuania, Malta, Romania, Russian Federation, Saudi Arabia, Chinese Taipei, Thailand, Turkey and the United Arab Emirates) and 9 bilateral providers that do not report to the OECD but with whom the DAC collaborates closely (Brazil, Chile, China, Colombia, India, Indonesia, Mexico, Qatar and South Africa).

## ANALYSIS OF BILATERAL ODA TO BIODIVERSITY

13. This section assesses trends in bilateral ODA commitments from members of the OECD DAC targeting biodiversity as an objective from 2007 to 2012, with a focus on 2010-12 (Box 1)<sup>7</sup>. It should be noted that the quantity of ODA provided is not an indication of its effectiveness in achieving biodiversity and development objectives.

### Box 1. Using the OECD DAC Rio markers to monitor biodiversity-related development finance

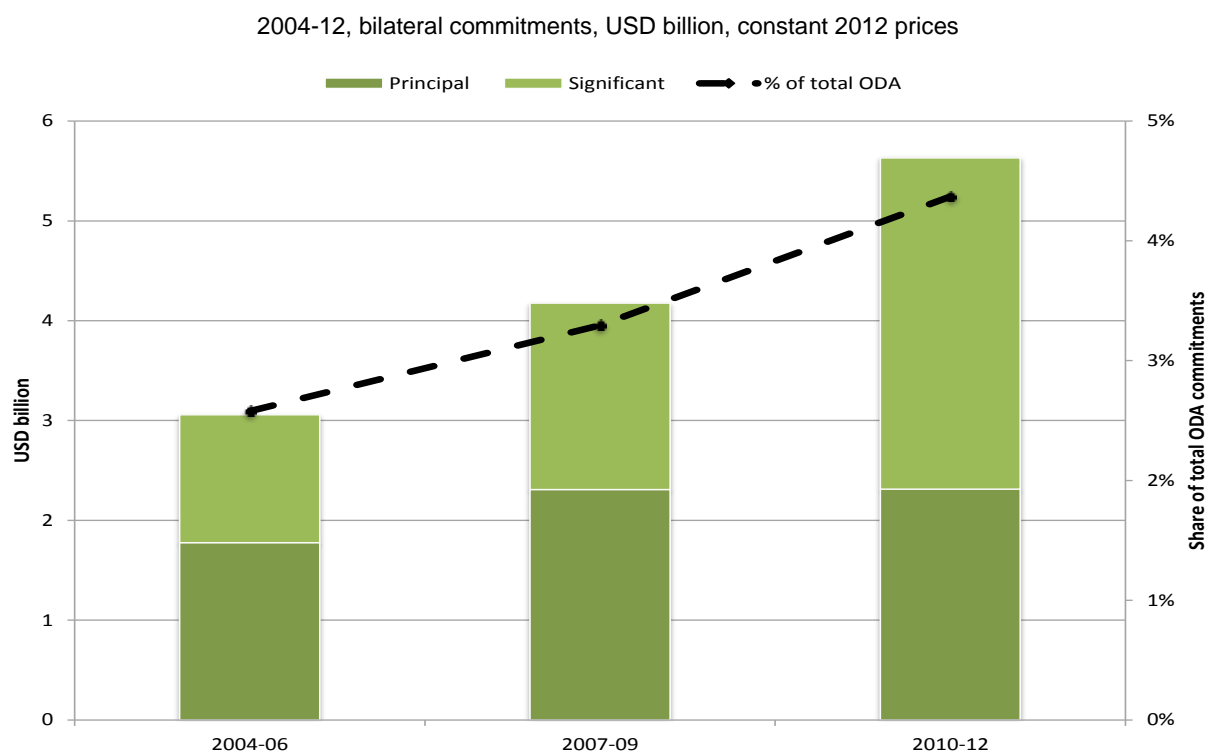
The data for this section is drawn from DAC members' reporting to the OECD DAC Creditor Reporting System (CRS), an activity-level database, focusing on activities identified with the "biodiversity" Rio marker. The biodiversity Rio marker identifies and captures information on every bilateral aid activity that targets biodiversity. Each aid activity reported is screened and marked as either (i) targeting the Convention as a '*principal*' objective or a '*significant*' objective, or (ii) not targeting the objective. Reporting started in 1998, and has been mandatory since 2007. Please see Annex 3 for more details about the history and the methodology of the Rio markers.

### Total bilateral biodiversity-related ODA

14. Total bilateral biodiversity-related ODA commitments by OECD DAC members have increased on average over the past decade, reaching USD 5.6 billion per year on average in 2010-12, or over 4000 individual aid activities per year. This represents 4% of total ODA commitments, both in terms of dollars and the number of aid activities committed (Figure 2). The level of ODA targeting biodiversity as a *principal* objective is USD 2.3 billion in 2010-12, considered as a "lower bound" of ODA to biodiversity, while the total estimate includes ODA targeting biodiversity as both a principal and significant objective. The overall growth in the amount of bilateral biodiversity-related ODA is mainly due to the increase in ODA targeting biodiversity as a "*significant*" objective, which more than tripled between 2007 and 2012.

15. OECD DAC members are increasingly targeting environmental synergies and co-benefits with their ODA; for example, the proportion of total biodiversity-related ODA targeting multiple environmental objectives increased from an average of 50% over 2004-06 to 82% over 2010-12. Synergies also exist between biodiversity objectives non-environmental development objectives such as health and food security. The extent to which these synergies are being exploited in bilateral development co-operation can be assessed when looking at the sectors to which biodiversity-related ODA is flowing.

<sup>7</sup> This analysis is complementary to routine statistical flyers produced by the OECD DAC, including on biodiversity-related ODA. For more information, including the OECD data visualisation portal on biodiversity-related ODA, see [www.oecd.org/dac/stats/biodiversity.htm](http://www.oecd.org/dac/stats/biodiversity.htm).

**Figure 2. Trends in biodiversity-related bilateral ODA, 3-year averages**

Note: In analysing finance flows, we recommend looking at trends over at least three years, in particular to smooth fluctuations from large multi-year projects programmed in a given year, such as observed in 2010.

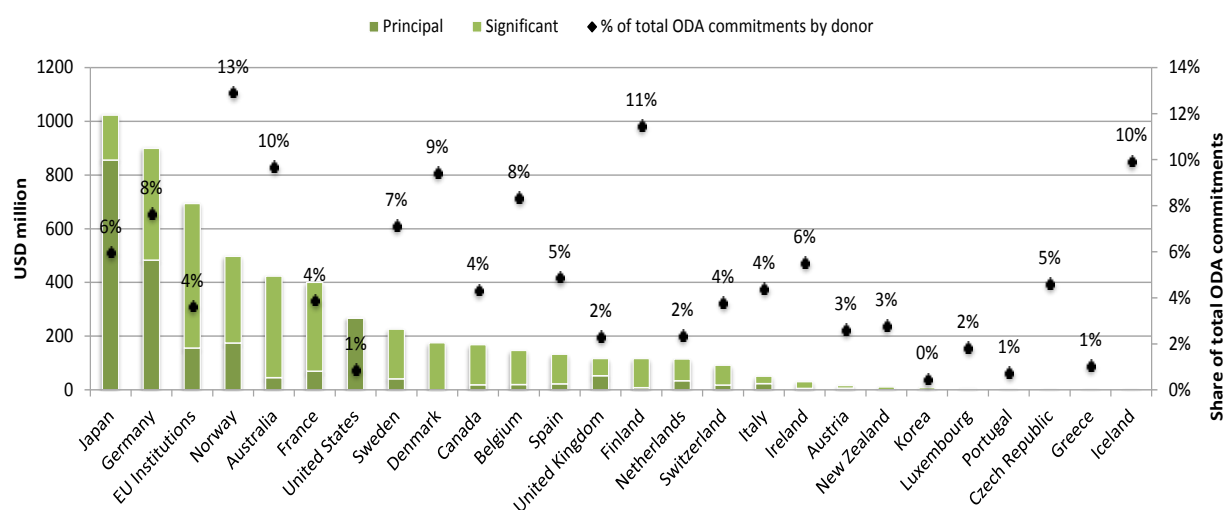
Source: OECD DAC Creditor Reporting System, September 2014

### Who are the largest providers of bilateral biodiversity-related ODA?

16. Japan, Germany and EU Institutions together provided 46% of total biodiversity-related ODA in 2010-12 (Figure 3). These three DAC members are also within the top 5 bilateral donors of total ODA. Japan, Germany and the United States are the top donors of ODA targeting biodiversity as a *principal* objective. In terms of relative volume, Norway appears to place the highest relative priority biodiversity; it is the country with the highest share of its total ODA portfolio targeting biodiversity (13%), and it is also the country with the greatest difference between its rank as a provider of biodiversity-related ODA commitments (4<sup>th</sup>) versus of total size if its ODA commitments (10<sup>th</sup>).

**Figure 3. Biodiversity-related ODA by DAC member**

Annual average 2010-12, bilateral commitments, USD million, constant 2012 prices

**Notes:**

1. As a full DAC member and a donor of Official Development Aid (ODA) in its own right, the European Union is considered as a DAC country for the purposes of reporting and presentation of data. Core ODA contributions from EU member states to the EU Institutions are separate and not reflected in individual EU countries bilateral ODA commitments to biodiversity, therefore there is no double counting.
2. The Slovak Republic and Slovenia are also DAC members, but they have not yet started applying the Rio markers.
3. The Rio markers are descriptive rather than strictly quantitative. They allow for an approximate quantification of financial flows targeting the objectives of the Rio conventions. Biodiversity-related finance as reported by Parties to the CBD is often based on, but may not be directly comparable to, Rio marker data.

Source: OECD DAC Statistics, October 2014

**How is bilateral biodiversity-related ODA delivered?**

17. ODA may be delivered through grants – which do not need to be repaid – or concessional loans (i.e. softer than market terms), which do need to be repaid. In general, grants are more likely to be used in Least Developed Countries, whereas loans may be more appropriate for (Upper) Middle Income Countries which may be in a stronger position to repay them.

18. The share of grants as an aid instrument to deliver biodiversity-related ODA has been increasing over time (77% grants in 2010-12 versus 58% grants in 2004-06). While this grants share of the portfolio is now in line with total ODA, the trend in total ODA has been moving slowly in the opposite direction (81% grants in 2010-12 versus 89% grants in 2004-06). There may be a number of reasons for the increasing use of grants in biodiversity-related ODA. One is that the share of biodiversity-related aid from France, Germany and Japan – the only three countries delivering biodiversity-related aid through loans – has been decreasing over time (55% in 2004-06 vs. 41% in 2010-12). Another reason may be the increase in the share of biodiversity-related aid targeting multi-country and regional activities and international funds, programmes and research – estimated to be 30% in 2010-12 versus 15% in 2004-06 – which is delivered almost 100% through grants. A third reason may be because of the rising attention of OECD DAC members on supporting capacity building, which is again delivered largely through grants.

19. OECD DAC members have a choice of numerous channels through which to deliver biodiversity-related ODA<sup>8</sup>. For example, aid can be channelled through donor or recipient country governments, through non-governmental organisations, through universities and research institutions, or through multilateral development banks and institutions, and more. Over 2010-12, 57% of bilateral biodiversity-related ODA was channelled through the public sector – i.e. donor governments, recipient governments, or third party governments. At least half of this was channelled directly through recipient country governments as the first implementing partner, but that overall share could be higher. About 15% was delivered on the ground by international, national and local non-governmental organisations (NGOs), and a further 15% was channelled through multilateral development banks and UN agencies for “earmarked” projects (this is separate and additional to donors’ core contributions to these institutions). The remainder was delivered through multiple channels including universities and research institutions, public-private partnerships and regional community secretariats.

### **To which sectors, countries and regions and does bilateral biodiversity-related ODA flow?**

#### ***Sectors***

20. Biodiversity-related ODA is heavily concentrated in the general environment protection,<sup>9</sup> agriculture, forestry, fishing and rural development, and water supply and sanitation sectors, with these sectors receiving 82% of total biodiversity-related ODA commitments in 2010-12 (Figure 4). Looking at biodiversity-related ODA as a proportion of total ODA to each sector can give an indication of the degree of mainstreaming of biodiversity that is occurring. The top sectors for biodiversity mainstreaming are general environmental protection (37%), agriculture, forestry, fishing and rural development (20%), tourism (16%) and water supply and sanitation (15%).

21. While increasing the degree of mainstreaming of biodiversity across all sectors and activities is important, there are some areas where there may be particular room for improvement. Biodiversity is considered as a principal or a significant objective in a very low proportion of industry (2%), mining (1%), construction (1%) and transport (1%) activities, which are sectors that may negatively impact upon biodiversity. There may also be opportunities for synergies between biodiversity and other development issues to be further exploited; for example, only 2% of activities targeting the health sector have a principal or significant biodiversity objective. The exploitation of synergies between biodiversity and food security appears to be slightly higher; 14% of aid activities targeting agriculture and 21% of aid activities targeting fishing have a principal or significant biodiversity objective.

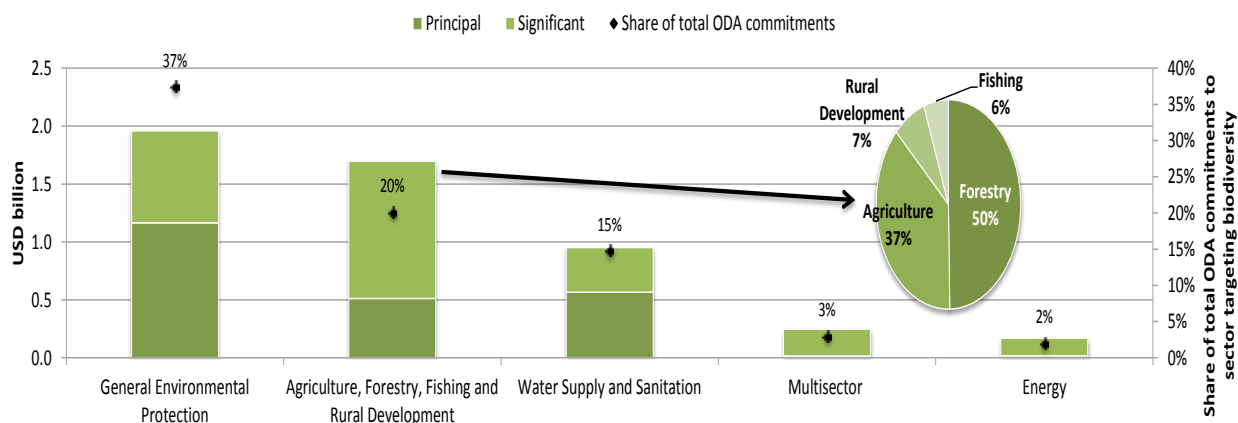
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<sup>8</sup> The delivery channel is the first implementing partner, which has implementing responsibility over the funds, and is normally linked to the donor by a contract or other binding agreement, and is directly accountable to it (OECD, 2013a)

<sup>9</sup> “General Environment Protection” covers activities concerned with conservation, protection or amelioration of the physical environment without sector allocation. The category comprises aid to: environmental policy and administrative management; biosphere protection; site preservation; flood prevention/control; environmental education/training; environmental research; and a specifically-coded “biodiversity” sub-sector which specifically covers the conservation, protection or amelioration of natural reserves and actions in the surrounding areas, and other measures to protect endangered or vulnerable species and their habitats, such as wetlands preservation.

**Figure 4. Top 5 sectors receiving bilateral biodiversity-related ODA**

Annual average 2010-12, bilateral commitments, USD billion, constant 2012 prices



Source: OECD DAC Statistics, October 2014

### Capacity-building

22. Developing countries have identified a lack of capacity as a key barrier to implementing measures for biodiversity conservation and sustainable use. However, estimated bilateral support for capacity building has been increasing over time,<sup>10</sup> rising from USD 0.8 billion per year in 2004-06 to USD 2.5 billion per year in 2010-12, representing a rise in the share of capacity-building in total biodiversity-related ODA from 25% to 44%. This share of biodiversity-related aid targeting capacity building is roughly equal across all income groups and regions. In 2010-12, 67% of capacity-building support targeted biodiversity as a *significant* objective, suggesting that biodiversity was integrated into broader capacity building activities; the remaining 33% targeted biodiversity as the *principal* objective of the capacity-building activities. Most capacity-building aid is delivered through grants (88%), which may more adapted to this “soft” kind of activity.

23. The large majority of estimated biodiversity-related aid supporting capacity-building in 2010-12 targets policy and administrative management (85%), particularly in the areas of environmental policy and forestry policy. Aid also supports policy and administrative management in the agriculture, water, fishing, tourism and trade sectors. Only 12% supports biodiversity-related research, education and training, and the remainder supports institutions and financial services.

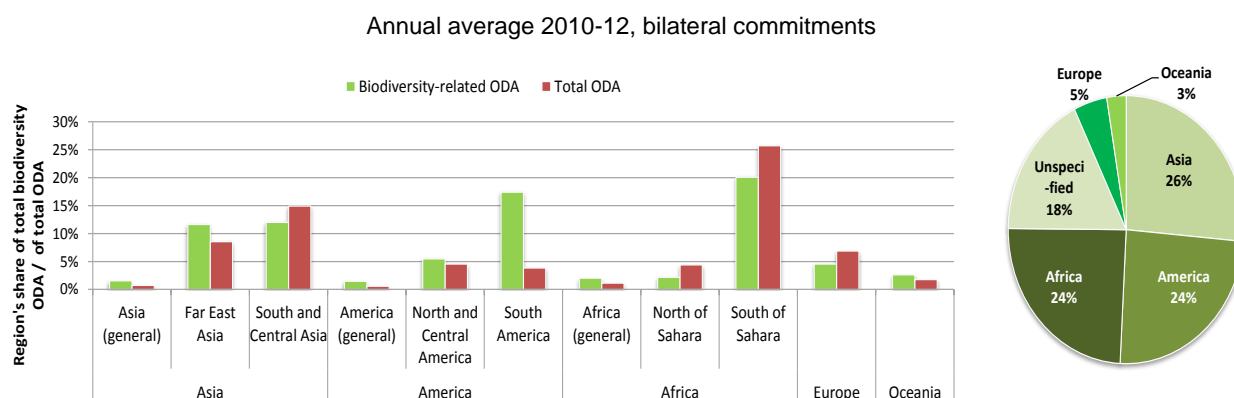
### Regions, countries and income groups

24. Asia, Latin America and the Caribbean and Africa each receive roughly a quarter of biodiversity-related aid, with the remaining quarter going to Europe, Oceania and aid activities that cannot be broken down by region (e.g. supporting international research and events) (Figure 5). Looking at sub-regions, South America stands out in particular as receiving a significantly higher share of biodiversity-related ODA (17% of total ODA for biodiversity goes to South America) than of total ODA (4%) (Figure 5). This

<sup>10</sup> Although there is not a specific sector code for capacity building in the OECD DAC CRS, it has been estimated in this paper based on biodiversity-related activities that target policy and administrative management, research, education and training, public/financial institutions and access to financial services. For completeness, the CRS sub-sectors “statistical capacity building” and “agricultural extension” were also added.

may be driven by the fact that Brazil is the highest individual country recipient over 2010-12, accounting for 9% of total biodiversity-related ODA alone (Figure 6). Completing the top five recipients are India, Vietnam, Turkey and Indonesia, all of which have consistently been within the top ten recipients of biodiversity-related ODA since 2002.

**Figure 5. Regional distribution of bilateral biodiversity-related ODA**



Source: OECD DAC Creditor Reporting System, September 2014

25. South America is also the region where biodiversity is the most mainstreamed into development co-operation portfolios; on average, 20% of total ODA to South America targeted biodiversity over 2010-12 (the second highest region is Oceania, 7%). At the individual country level, six out of the top ten countries with the highest share of biodiversity to total ODA are located in Latin America and the Caribbean (Figure 7).

**Figure 6. Top 10 partner countries by volumes of biodiversity-related ODA**

Annual average 2010-12, bilateral commitments, USD million, constant 2012 prices

Country	USD million	Share of total biodiversity-related ODA
Brazil	527	9%
India	356	6%
Vietnam	168	3%
Turkey	157	3%
Indonesia	155	3%
Ethiopia	116	2%
China	110	2%
Peru	109	2%
Guyana	97	2%
Kenya	78	1%

Source: OECD DAC Statistics, October 2014

**Figure 7. Top 10 partner countries by share of biodiversity-related ODA in total ODA**

Annual average 2010-12, bilateral commitments

Country	Share of total ODA received that is biodiversity-related
Guyana	61%
Brazil	33%
Maldives	29%
Mauritius	20%
Honduras	19%
Peru	16%
Costa Rica	16%
Gabon	16%
Cuba	11%
Cameroon	11%

Source: OECD DAC Creditor Reporting System, September 2014

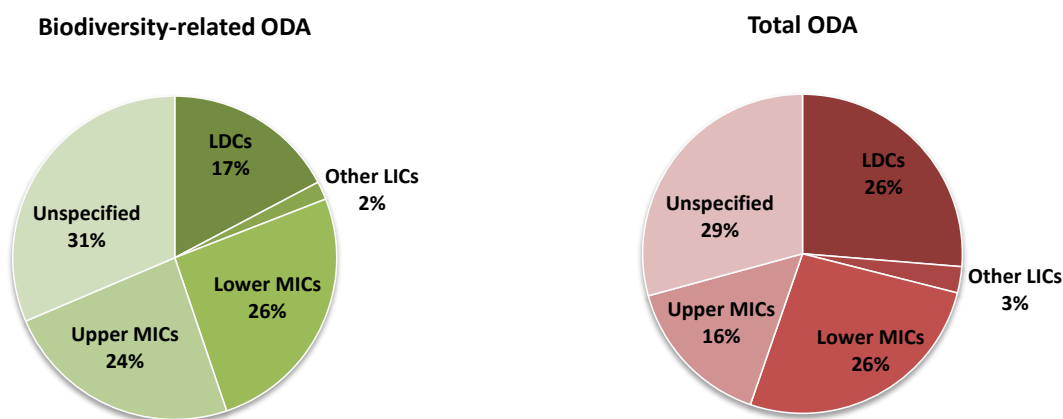
26. The high relative focus of bilateral donors on Latin America and the Caribbean (especially South America), particularly from Norway, Germany and Japan and in the areas of forestry and general

environmental protection, may reflect the fact that the LAC region has been identified as a high priority for investment in biodiversity. This finding comes from a range of different studies and is related to its concentration of biodiversity hotspots<sup>11</sup> (Myers et al., 2000), its endemic species density (Joppa et al., 2013) and its concentration of priority areas for adaptation of agriculture and biodiversity in the face of climate change (Hannah et al., 2013). It may also indicate that these countries themselves are placing a high priority on biodiversity in their development policy and planning, and that development co-operation providers are aligning with this priority.

27. Small Island Developing States (SIDS) and Least Developed Countries (LDCs) are identified within CBD text as being priorities for international biodiversity finance (CBD COP 11 Decision XI/4 paragraph 7(a), 2012). In 2010-12, just over half of SIDS ranked higher in terms of biodiversity-related ODA received compared to their rank in total ODA received (e.g. Kiribati is the 104<sup>th</sup> highest recipient of biodiversity-related ODA and the 135<sup>th</sup> highest recipient of total ODA), and more than half of SIDS have a level of mainstreaming of biodiversity into total ODA received that is below the global average. Notable exceptions, however, are Guyana, the Maldives, Mauritius and Cuba, which do have very high shares of biodiversity-related ODA in total ODA (Figure 7). Turning to LDCs, Figure 8 illustrates that Least Development countries receive a significantly lower share of biodiversity-related ODA than of total ODA from OECD DAC members (17% vs. 26%). Conversely, Upper Middle Income Countries (Upper MICs) receive a significantly larger share of biodiversity-related ODA than of total ODA (24% vs. 16%). However, the study of bilateral aid flowing to SIDS and to LDCs is incomplete because of the relatively large share of biodiversity-related ODA and of total ODA that is “unspecified”. The “unspecified” category is known to include multi-country and regional activities; it thus remains unknown how much of the ODA in this category is targeting SIDS and LDCs.

**Figure 8. Distribution of biodiversity-related ODA by income group**

Annual average 2010-12, bilateral commitments



Source: OECD DAC Creditor Reporting System, September 2014

<sup>11</sup> A biodiversity hotspot, as defined by Myers et al (2000), is an area where exceptional concentrations of endemic species are undergoing exceptional loss of habitat.



## LEVERAGING AND CATALYSING OTHER FORMS OF FINANCE

28. The large size of the estimated gap in finance for biodiversity and ecosystem services creates the need and opportunity for official development finance to be used to catalyse and leverage other sources of finance -- public and private, domestic and international -- to support the conservation and sustainable use of biodiversity and ecosystem services. The public sector can be harnessed by increasing domestic revenues through, for example, environmental fiscal reforms (such as removal of harmful subsidies) that both generate and then allocate more public finance to biodiversity and ecosystem conservation and use (e.g. through programmes administered by the Ministry of Environment); reforms can also aim to mainstream biodiversity and ecosystem service considerations into all sectors (OECD, 2012b). Instruments and policies can also be put in place to catalyse and mobilise private sector finance for biodiversity and ecosystem services, e.g. by tapping into markets for green products (e.g. eco-labelling schemes); through payments for ecosystem services (PES) programmes; through biodiversity offsets; and through environmental fiscal reform that introduces the use of taxes, fees and charges on private sector activities that exploit biodiversity and ecosystem services and/or are harmful to them (OECD, 2013b; OECD, 2013c). Finance from providers of development assistance to funds dedicated to biodiversity and ecosystem services, such as Conservation Trust Funds, may also be used to catalyse co-financing from both the public and private sectors.

29. This section, while not exhaustive, explores four of the above-mentioned policies and mechanisms in a developing country context, and looks at how ODA can help to implement them.

### Environmental fiscal reform

30. Integrating biodiversity and ecosystem service considerations into national budgetary processes provides opportunities to improve biodiversity conservation and sustainable use. Introducing fiscal instruments can directly change behaviour (e.g. production and consumption processes) to become more biodiversity friendly, while also raising revenue. This may help to secure more long term, sustainable domestic finance for biodiversity. Environmental fiscal reform is also an opportunity to change the way that the domestic budget is allocated. The section below will briefly look both at the use of fiscal instruments and at budget allocation.

31. Environmental fiscal reform with a biodiversity focus provides the opportunity to use taxation, pricing measures and policies to tap into private sector finance, while also achieving biodiversity and sustainable use goals (OECD, 2012b). These measures include (OECD, 2013b):

- taxes and charges on activities that harm biodiversity and ecosystem services, such as forestry, construction and entrance fees to access natural parks;
- taxes and charges on pollution, such as those on pesticides and fertilisers;
- rents from resource extraction, i.e. on mining activities;
- the removal of environmentally-harmful subsidies, such as those on agriculture and fossil fuels.

32. These fiscal measures have the potential to generate and unlock a large amount of revenue. For example, the International Energy Agency (2013) estimates that USD 544 billion was spent on fossil fuel subsidies worldwide in 2012. A 2014 review by the CBD of the implementation of the Strategy for Resource Mobilisation found that 93 countries have introduced fiscal reform measures for biodiversity; of

these, 59 are developing countries (CBD, 2014b). For example, in Cuba, the Havana Bay User Tax charges harbour users for activities that have an environmental impact, such as tourism, recreation and commercial activities, and the revenue goes directly to an environmental fund that finances activities to clean-up the Bay (Garrido, 2009 cited in OECD, 2013b). Other countries have greatly reduced their fertiliser subsidies, such as Pakistan (from USD 178 million to USD 2 million per year), Bangladesh (USD 56 million to USD 0), and the Philippines (USD 48 million to USD 0) (Myers, 1998 in WRI, 2008).

33. However, environment-related taxes, charges and other fiscal measures can be challenging to implement in developing countries due to a lack of capacity to design, implement, monitor and evaluate these measures, and/or weak governance structures that undermine these measures (OECD, 2012b; OECD, 2013b). Common challenges include multiple tax exemptions, tax rates that do not reflect the size of the externality that they are targeting (a challenge also encountered in developed countries), incoherence with other environmental policy instruments, corruption, and the inability to levy, collect and redistribute the revenue, in part due to the presence of a large informal sector (OECD, 2012b). For example, it is estimated that the Indonesian government lost almost USD 2 million on average per year between 2003 and 2006 due to illegal logging, corruption and mismanagement, e.g. forest taxes and royalties were not collected on illegally harvested timber (Human Rights Watch, 2009, cited in OECD, 2013b). On the separate point of subsidy reform, this can be highly politically sensitive (OECD, 2012b; OECD, 2013b) and requires both political will and institutional capacity to be successfully planned and implemented.

34. Environmental fiscal reform can also be an opportunity to allocate more of the budget to the Environment Ministry, which is often in charge of programmes targeting biodiversity conservation and sustainable use. Sector ministries and agencies may also increase the funds dedicated to improving the environmental management of sectoral programmes (OECD, 2012b). At present, the annual budget allocation to environmental protection (let alone for biodiversity specifically) in developing countries is relatively low; between 1% and 2.5% of public spending (Lawson and Bird, 2008, cited in OECD, 2012b). This may be due to a lack of awareness or understanding of the importance of the environment (including biodiversity and ecosystem services) for core policy issues such as poverty reduction and economic growth (Dalal-Clayton and Bass, 2009; OECD, 2013d). This may in turn be exacerbated by the difficulty of making a “business case” for biodiversity and ecosystem services due to a lack of sufficient data, information, skills and capacity (Dalal-Clayton and Bass, 2009). However, making the business case will be necessary; as budget allocations are often based on historical expenditures, and historical expenditures related to the environment are low, increasing public expenditures on the environment will require strategic policy dialogues with ministries of finance (OECD, 2012b).

35. Development co-operation can provide training and support to officials in partner country governments to identify opportunities for and design environment-related taxes, fees, charges and subsidy reform. As for increasing budget allocation to environment-related activities, development co-operation can help key actors in partner countries (e.g. in the Ministry of Environment) to create a convincing “business case” for biodiversity using a language that is understood by the ministries of finance and planning, in particular undertaking economic valuation of biodiversity and ecosystem services, and linking biodiversity and ecosystem services to traditional government priorities such as poverty reduction, agriculture and health (OECD, 2012b; IIED and UNEP-WCMC, 2014). These technical skills may include having the capacity to undertake biodiversity and ecosystem service valuation studies, being able to write credible, technically sound budget submissions, being able to map ecosystem services and being able to develop ecosystem service indicators (IIED and UNEP-WCMC, 2013a; OECD, 2012b; IIED and UNEP-WCMC, 2014).

36. There are a number of examples of development co-operation agencies and institutions supporting the technical skills necessary to make the business case for biodiversity and ecosystem services to ministries of finance and planning. A few are illustrated in Box 2 below.

### Box 2. Supporting the business case for biodiversity

The International Institute for Environment and Development (IIED), and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) have developed a short guide for developing countries called “Developing a ‘business case’ for biodiversity – Tips and tasks for influencing government and the private sector” (IIED and UNEP-WCMC, 2014). This guide is developed on the basis of experiences shared by Botswana, Namibia, the Seychelles and Uganda in the context of the “NBSAPs 2.0 Mainstreaming Biodiversity into Development” initiative, and proposes a simple, accessible framework for countries to use as well as a list of resources to draw upon.

The Conservation Strategy Fund, financed by the United States Agency for International Development (USAID) and a range of foundations, held a course in *Economic Tools for Conservation and Infrastructure Planning in the Albertine Rift* in 2012, aimed at biodiversity practitioners from Uganda, Rwanda, Kenya, Tanzania and the Democratic Republic of Congo. This two-week course trained participants in, *inter alia*, environmental valuation, cost-benefit analysis and communication and negotiation techniques (CSF, 2014). These can all be useful for creating and communicating a business case for Environmental Fiscal Reform.

Source : IIED and UNEP-WCMC (2014), “Developing a ‘business case’ for biodiversity – Tips and tasks for influencing government and the private sector”, *NBSAPs 2.0: Mainstreaming Biodiversity and Development*, IIED and UNEP-WCMC, London and Cambridge; Conservation Strategy Fund (CSF) (2014), *Biodiversity Understanding in Infrastructure and Landscape Development (BUILD)*, <http://conservation-strategy.org/en/node/1031#.U-EilPmSxHV>, last accessed 5 August 2014.

### Markets for green products

37. Markets for green products encompass a wide range of goods and services, including those relevant to the sustainable use of biodiversity and ecosystem services. These include those that are based on ecosystem services, such as eco-tourism, goods that have been produced using a production method that has a lower impact upon biodiversity than business-as-usual (e.g. certified timber and certified agriculture), and goods whose consumption will have a lower impact upon the environment than standard goods of that kind (e.g. biodegradable detergent) (TEEB, 2009). Such markets can be facilitated by eco-labelling and certification schemes, which inform consumers of the products’ biodiversity-friendly qualities, and by green public procurement, which stimulates demand for these products (OECD, 2013b).

38. Markets for green products are an important means by which to access private finance for biodiversity conservation and sustainable use. Revenue is generated by adding a price premium to goods that are produced using environmentally-friendly methods. In the case of biodiversity and ecosystem services, this means goods that are produced using biodiversity and ecosystem services in a sustainable manner, goods that are produced in a way that has a lower impact upon biodiversity, or goods whose consumption has a lower impact on biodiversity and ecosystem services due to a decreased pollution load (OECD, 2013b; Parker et al., 2012). These markets have been growing strongly over the past few years (OECD, 2013b), and this is expected to continue; Parker et al. (2012) estimate that they may generate USD 10.4 billion to USD 29.9 billion per year by 2020, up from the USD 6.6 billion that they are estimated to generate today.

39. A recent 2014 review found that 75 countries have established some form of market for green products; of these, 51 are developing countries (CBD, 2014b). Examples of certification schemes in developing countries include the Lembaga Ekolabel Indonesia for Indonesian forests, the East Africa Organic Products Standard, and the Pacific Organic Standards. Developing country governments are also imposing green standards; for example, The Government of Guatemala has made Forest Stewardship Council (FSC) certification mandatory for forestry companies operating in the Maya Biosphere Reserve (UNCTAD 2011, cited in OECD, 2013b)

40. In developing countries, a lack of financial and technical capacity has sometimes prevented producers from being able to make high-quality products and to subsequently join eco-labelling schemes (OECD, 2013b). Weak governance is also a challenge, in that it can hinder monitoring, reporting and verification, and compliance and enforcement of the certification standards (OECD, 2013b). Development co-operation providers can assist partner countries to access these high-potential markets by helping to provide initial start-up finance and capacity-building activities. Development co-operation providers can also help to bring small-scale producers together in cooperatives to achieve the economies of scale needed to access these markets (OECD, 2013b). Examples are provided in Box 3 below.

**Box 3. Examples of development co-operation facilitating access to green markets**

An example of this is the ACDI/VOCA Agricultural Cooperatives in Ethiopia (ACE) project, which is funded by the United States Agency for International Development (USAID). ACE helped small-scale Ethiopian farmers to access international markets for their coffee by addressing all barriers in the value chain, such as providing technical assistance to help improve the quality of the coffee, creating cooperatives and larger cooperative “unions” to achieve the economies of scale needed to reach international markets, and improving efficiency by facilitating direct exports. As a result of the improved coffee quality and the economies of scale created by the formation of cooperatives, the Ethiopian coffee cooperatives were able to register to be certified with eco-labels. As of 2006, 24 of the Ethiopian coffee cooperatives were registered and certified by “Fair Trade,” and over 70 were certified organic (Dempsey and Campbell, 2006).

The Austrian Development Agency (ADA) is also active in helping small scale farmers to improve the quality and the social and environmental sustainability of their products, in order to access certification schemes and international markets. For example, ADA is partnering with the AGRANA group, a food processing company, to help small scale farmers in Michoacán, Mexico to increase the social and environmental standards of their strawberry and blackberry production in order to be able to obtain Rainforest Alliance certification. This EUR 400 036 (about USD 545 000) project, of which ADA is providing EUR 200 000 (about USD 272 000), will provide training for farmers and field workers in areas such as ecosystem conservation and integrated crop management, will provide equipment to the farms such as plants and trees for reforestation, and will provide internal capacity development to AGRANA staff so that they can replicate this type of project with farmers in other countries in which they work. The project outcomes will be the implementation of sustainable agriculture methods, the active protection of the environment around the farms, and improved working conditions for 1 060 employees of 28 farms. This project accesses private sector finance for biodiversity conservation and sustainable use both directly by leveraging co-financing from the partner firm AGRANA, and indirectly by allowing farmers to access international markets for their products, thus allowing them to cover the costs of using sustainable agriculture methods.

*Source* : The USAID example is documented in Dempsey and Campbell (2006), “A Value-Chain Approach to Coffee Production: Linking Ethiopian Coffee Producers to International Markets”, *World Report*, Spring 2006: Speciality Coffee; Improved Market Linkages and Increased Profits. The ADA example was provided to the OECD ENVIRONET Secretariat by the Austrian Development Agency.

**Payments for ecosystem services**

41. Payments for Ecosystem Services (PES) are a voluntary mechanism whereby the user or beneficiary of a specific, well-defined ecosystem service pays the individual or community responsible for ensuring that this ecosystem service is provided. The payment is conditional upon the ecosystem service being provided (Wunder, 2005). PES therefore rest on the premise that there is mutual self-interest for an ecosystem service to be provided, i.e. that the ecosystem service has a quantifiable economic benefit that someone is willing to pay for (there is a “buyer”), and that this economic value is sufficient to entice the individuals or community using the land to ensure the continued provision of this ecosystem service (there is a “seller”) (OECD, 2010b; OECD, 2013b; OECD DAC ENVIRONET, 2012). PES have been applied for carbon sequestration services and watershed services and, to a lesser extent, for biodiversity and for the preservation of scenic beauty (with eco-tourism in mind) (Ingram et al., 2014). According to a recent review, about 95 countries have established some form of PES; of these, 63 are developing countries

(CBD, 2014b). It is estimated that today there are more than 300 PES programmes implemented worldwide (OECD, 2010b), including regional PES. Some of these are generating considerable revenue; PES are estimated to channel over USD 6.5 million annually through five national programmes alone (OECD, 2010b).

42. There have been a number of successful PES programmes documented in developing countries, which have produced both ecological benefits and have improved rural livelihoods (Ingram et al., 2014; OECD, 2010b; Wunder et al., 2008). For example, a community-based ecotourism PES initiative based on bird watching in Tmatboey, Cambodia, succeeded in increasing the population of the rare ibis species found in the area, led to the agreement of a sustainable land use plan, led tourism revenue to increase by 100% between 2005 and 2008, and created over 100 jobs (Ingram et al., 2014). However, PES have not always lived up to expectations; they are a highly complex mechanism that require a number of elements to be in place in order to succeed. These are listed in Box 4 below.

**Box 4. Conditions for successful PES schemes in developing countries**

- The primary focus of the programme is on ecosystem service enhancement, meaning that there are not too many competing objectives in the programme to complicate its design, but the programme automatically brings benefits to the rural poor.
- Significant support is provided to the participating local communities to build capacity in negotiation, land/resource management, monitoring and enforcement.
- Information is largely symmetrical between the buyer and seller.
- The willingness-to-pay and the willingness-to-accept between the buy and seller are similar.
- Negotiations are conducted transparently, using a trusted interlocutor, and with broad community participation.
- Existing systems are built upon where possible, and all governance mechanisms are locally developed and transparent.
- Property/land tenure rights are clearly defined and enforceable. This is important to enable the landholder to provide the ecosystem service, and to combat illegal land use or appropriation which may undermine the success of a PES programme.
- A robust monitoring and reporting framework is put in place, in order to track whether the PES programme is delivering its intended objectives and to enable the programme to be improved over time.

*Sources:* Ingram, J.C. et al. (2014), "Evidence of Payments for Ecosystem Services as a mechanism for supporting biodiversity conservation and rural livelihoods", *Ecosystem Services*, Vol. 7, pp.10-21; OECD (2013b), *Scaling-up Finance Mechanisms for Biodiversity*, OECD Publishing, Paris, doi: 10.1787/9789264193833-en; Sandker, M., Ruiz-Perez, M. and Campbell, B.M. (2012), "Trade-Offs Between Biodiversity Conservation and Economic Development in Five Tropical Forest Landscapes", *Environmental Management*, Vol. 50, pp. 633-644. OECD (2010b), *Paying for Biodiversity – Enhancing the Cost-Effectiveness of Payments for Ecosystem Services*, OECD Publishing, Paris.

43. A number of these governance elements, such as defined and enforceable property rights/land tenure and a robust monitoring and reporting framework, are often weak or lacking in developing countries, to the detriment of the poor and the environment generally (Ingram et al., 2014; OECD DAC ENVIRONET, 2012). This poses a challenge to the establishment of PES. Additional barriers preventing the poor in developing countries from accessing PES programmes are a lack of information about how PES programmes work, high transaction costs (e.g. multiple, complex contracts), and a lack of capital and/or insurance to participate in PES programmes (OECD, 2010b; OECD, 2013b; OECD DAC ENVIRONET, 2012).

44. Development co-operation activities can address these barriers, for example in the design of programmes to disseminate information on PES to the poor, building the capacity of local institutions to

design PES programmes, to negotiate PES agreements and to monitor and enforce them, and providing access to inputs, credit or insurance for these programmes (OECD, 2010b; OECD 2013b; OECD DAC ENVIRONET, 2012; Ingram et al., 2014). Box 5 presents a few examples.

#### **Box 5. Examples of development co-operation activities supporting PES programmes**

Development co-operation activities funded by the German government have been supporting PES for a number of years, particularly in Latin America. Support goes predominantly to the early stages of establishing a PES; designing, implementing and monitoring the PES, creating suitable framework conditions, clarifying property rights, ecosystem service valuation, and creating new markets (BMZ and GTZ, 2010). For example, German development co-operation supported the Peruvian Ministry of Environment and National Water Authority to implement a PES aiming to restore and conserve ecosystem services in the upper watershed areas in the department of San Martin (BMZ and GTZ, 2010). This is an area rich in biodiversity, but pressures from population growth have led to the conversion of a lot of rainforest into townships and farmland. Through multi-stakeholder consultations, it was agreed that the restoration and conservation of the area would be funded by a fee added to the water bills of local inhabitants. Local farmers agreed to refrain from certain agricultural practices in the upper watershed area, and to introduce agro-forestry systems in the lower watershed area, in return for technical assistance to develop economic alternatives. German development co-operation helped to implement this PES through public awareness building, environmental education, and capacity building in government (BMZ and GTZ, 2010).

The European Commission, through its "EU-Brazil Support Facility to Sector Dialogues", supported an intensive dialogue on PES with the Brazilian Ministry of Environment from 2011 to 2013. This dialogue took place through multi-stakeholders seminars and workshops, technical visits and videoconferences, and joint publications, to analyse and compare experiences from Brazil, Europe and other countries and to assess the possibilities of replicating and up-scaling PES. In addition to consolidating knowledge among participants from both public and private sectors, this dialogue also contributed to the elaboration of federal legislation and policy on "Pagamento por Serviços Ambientais". While the latter is still a law under review by the National Congress (PL 795/07), elements of PES are already enforced through other laws such as the Brazilian Forest Code and the National Policy on Water Resources (Diálogos Setoriais, União Europeia Brasil, n.d.).

*Source* : BMZ (Federal Ministry for Economic Cooperation and Development) and GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) (2010), *Biodiversity in Germany Development Cooperation*, GTZ, Eschborn. The example of the EU-Brazil Support Facility to Sector Dialogues was provided by the European Commission.

#### **Dedicated funds and alliances**

45. In addition to supporting capacity-building in developing countries to put in place policies and mechanisms that raise finance for biodiversity, development co-operation providers can also work together to leverage additional finance for biodiversity through the creation of dedicated funds. Dedicated funds for biodiversity and ecosystem services established or supported by (groups of) development co-operation providers may help to mobilise funding from NGOs, foundations, partner country governments, and other development co-operation providers. These funds can help to increase and to streamline development co-operation activities in the area of biodiversity and ecosystem services, and increase the alignment of biodiversity-related aid with partner countries' biodiversity priorities. They can also help to make funding for biodiversity more long-term, stable and predictable (CFA, 2008). Finally they have a role to play in leveraging other investment and generating co-financing to support sustainable use of biodiversity and ecosystem services. However, some disadvantages can include high administrative costs, exposure to market volatility and possible loss of capital, and the fact that many development co-operation agencies are not structured to follow up on the effectiveness of very long-term investments or to remain accountable to taxpayers on the use of these public funds (CFA, 2008).

46. One example of a dedicated fund is the *Critical Ecosystem Partnership Fund* (CEPF), whose members are France, the European Union, Japan, Conservation International, the Global Environment

Facility, the World Bank and the MacArthur Foundation. CEPF provides grants to NGOs and private sector organisations to help protect biodiversity hotspots in developing countries and countries with economies in transition. Since its inception in 2000, CEPF has committed USD 148 million in grants, with which grant recipients have leveraged USD 340 million for the conservation of biodiversity hotspots; an investment ratio of over 2:1. This money has supported over 1700 civil society organisations to conserve 21 of 35 hotspots in 60 countries and territories (CEPF, 2012).

47. The French Global Environment Facility (*Fonds Français pour l'Environnement Mondial*, FFEM) is another example of a dedicated fund that targets biodiversity and leverages other forms of finance. The FFEM was established by the French Government in 1994 to co-finance activities targeting six global environmental areas, of which biodiversity is one. On average, it is estimated that for every EUR 1 (USD 1.3) granted by the FFEM, an additional EUR 9 (USD 11.5) is raised through public and private co-financing (FFEM, 2012). To date, the FFEM has granted EUR 125.7 (USD 161.2) million to activities targeting biodiversity (119 projects in total). Of this aid, 65% is concentrated in Africa and 26 % in the Mediterranean. In 2012, biodiversity comprised almost 24% of FFEM's projects, which predominantly focused on the sustainable management of forests, and sought to help the development of new forms of funding by supporting certification initiatives for the labelling of forestry products (FFEM, 2012). Funding mechanisms for biodiversity is one of the FFEM's five strategic priority areas for 2013-2014.

48. Specialised funds can also be established directly in partner countries. Conservation Trust Funds (CTFs), operating at the national or regional level, now exist in more than 50 developing countries, but are concentrated predominantly in Latin America and the Caribbean (CFA, 2008). For example, in Latin America and the Caribbean, at least 11 CTFs are supported by international donors. A study of 28 CTFs worldwide, including 15 from Latin America and the Caribbean, found that the five-year returns for these funds averaged 7.8% (2006-2010) (Preston and Victurine, 2010, cited in World Bank, 2012). Reviews of existing CTFs have identified a number of conditions that are important for their success, which are outlined in Box 6 below.

**Box 6. Conditions for successful Conservation Trust Funds identified in developing countries to date**

- The fund has a long-term fundraising strategy, and the funding commitment is over a long time period, e.g. at least ten to fifteen years.
- There is local ownership over the choice and design of projects that the funds are used to support.
- There is widespread support from a range of different stakeholders for achieving biodiversity conservation and sustainable development, but in particular from the government.
- There is a basic institutional framework (legal, financial) established in the partner country that people trust.
- The fund has clear targets and a clear monitoring and evaluation framework.

Source : CFA (2008), Ruhweza (2009), World Bank (2012)

49. In addition to combining and leveraging resources in the form of dedicated funds for biodiversity and ecosystem services conservation and sustainable use, development co-operation providers and other stakeholders can also collaborate to leverage additional resources in the form of knowledge and experience-sharing. An example of an established group focusing on biodiversity finance is the Conservation Finance Alliance (CFA). The CFA was founded in 2002 to enhance collaboration among institutions and organisations involved in the sustainable financing of biodiversity conservation. Three of the largest financial supporters of this initiative are the German Development Bank (KfW), the French Global Environment Facility (FFEM) and the French Development Agency (AFD). This initiative aims to indirectly help to increase finance to biodiversity from non-ODA sources, through facilitating the sharing

of ideas and experience. It does this through Working Groups on Innovative Financing Mechanisms, on Protected Areas Financing, and on Environmental Funds (CFA, 2014).

### **Identifying opportunities to develop finance mechanisms for biodiversity**

50. Although a wide variety of instruments and mechanisms are available to generate finance for the conservation and sustainable use of biodiversity and ecosystem services, developing countries often face the challenge of not having sufficient capacity to fully identify their environmental challenges and priorities, and their related funding and capacity gaps. Countries can subsequently have difficulty identifying the instruments and mechanisms that may be best suited to their domestic context to address these challenges (OECD, 2012b; OECD DAC ENVIRONET, 2012; Waldron et al., 2013).

51. Development co-operation can play an important role to provide technical assistance to help countries identify biodiversity funding needs, gaps, opportunities, and financial instruments. The “Biodiversity Finance Initiative” (BIOFIN) is an example of this sort of technical co-operation in action (Box 7).

#### **Box 7. The Biodiversity Finance Initiative**

BIOFIN is a USD 15 million programme implemented by the United Nations Development Programme (UNDP), with the financial support of the European Union (EU), Germany and Switzerland. BIOFIN is working with developing countries to help them develop national resource mobilisation strategies for biodiversity and ecosystem services. UNDP has developed a methodology, called the “BIOFIN Workbook”, which includes a thorough review of the current policy, institutional and fiscal frameworks affecting biodiversity and ecosystem services and of the impact, effectiveness, alignment and coherence of public policies and institutions. BIOFIN helps countries to identify the financing gaps, and to assess what mechanisms and policies appropriate to the domestic context could be used to fill the financing gap to biodiversity. The programme has the aim of helping countries to fund their National Biodiversity Strategy and Action Plans (NBSAPs), thereby implementing the Strategic Plan for Biodiversity 2011-2020 and the twenty Aichi Targets at the national level. BIOFIN is currently being trialled in 19 countries across Asia, Africa and Latin America.

*Source : UNDP (United Nations Development Programme) (2014), *The Biodiversity Finance Initiative – An overview and key progress summary*, information document, UNEP/CBD/WGRI/5/INF/13, 10 June 2014, and UNDP (2013b), “Transforming Biodiversity Finance: The Biodiversity Finance (BIOFIN) Workbook for assessing and mobilizing financial resources to achieve the Aichi Targets and to implement National Biodiversity Strategies and Action Plans”, Version 3.0 Draft for Distribution, June 4, 2013.*



## SUMMARY POINTS

52. A significant increase in long-term and sustainable finance for biodiversity conservation and sustainable use is essential to meet the internationally agreed goals of the CBD, the MDGs, and the post-2015 Sustainable Development Goals. Bilateral ODA commitments to biodiversity have, on the whole, been rising over the past decade, with an increasing focus on activities targeting synergies between biodiversity and climate change mitigation, climate change adaptation, and desertification. Biodiversity-related ODA commitments are concentrated in activities related to environmental policy support, technical assistance and capacity building (i.e. under the general sector in the DAC CRS known as “general environmental protection”); and in the water supply and sanitation, agriculture and forestry sectors.

53. While external development finance will remain important to developing countries in their efforts on biodiversity, even when scaled up, it will only be one of many different sources of funding to achieve biodiversity and development goals. Many other sources of finance are available and essential to progress at the national level, including domestic and private finance, as well as policies and mechanisms to generate and manage finance for biodiversity in developing countries. Relevant domestic policies include environmental fiscal reform, payments for ecosystem services, market creation mechanisms for green products, conservation trust funds, biodiversity offsets and more. Such policies have the potential to catalyse public and private investment. Development co-operation has an important role to play to support country-led policy reform processes to catalyse the use of these tools and mechanisms in developing countries. For example, technical assistance can support countries to develop institutional capacity at different levels of governance to design, implement, monitor and evaluate, and enforce relevant policies and mechanisms. This paper provides evidence on how development co-operation can not only support national efforts on biodiversity directly but also on how it can support countries to undertake policy reforms and implement projects to mobilise domestic and private resources over the long-term for the conservation and sustainable use of biodiversity and related ecosystem services.

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## **ANNEX 1. DIFFERENT CALCULATIONS OF CURRENT AND REQUIRED FUNDING FOR BIODIVERSITY**

Each estimate of current finance to biodiversity and biodiversity finance needs have been calculated by different sources, using different methodologies and in different contexts, therefore it is important to only use them as illustrative of a substantial funding gap to biodiversity. The paragraphs below give a bit more information about where the data comes from.

Current bilateral ODA is calculated directly from the Rio markers in the DAC Creditor Reporting System (CRS) database, and is the annual average of biodiversity-related aid over 2010-12.

The estimate of total annual funding to biodiversity between 2005 and 2008 (Waldron et al., 2013) is a compilation of spend by bilateral and multilateral donors, private philanthropy, national in-country spending, and Conservation Trust Funds and debt swaps.

Global Canopy estimates total funding to biodiversity in 2010 by pulling together data from a variety of sources including academic journal articles, the OECD, the FAO, and international conservation NGOs (Parker et al., 2012). However, an important caveat is that there lacks an explanation as to the compatibility of methods or price level.

The estimate of annual funds needed to protect and effectively manage all terrestrial sites of global conservation significance (McCarthy et. al., 2012) focuses on the cost of implementing Aichi Target 11 and Aichi Target 12, and therefore does not reflect the total cost of implementing the Strategic Plan for Biodiversity 2011-2020.

The report by the High-Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020 is the first formal assessment of the resources required to implement the Strategic Plan for Biodiversity 2011-2020. However, the High-Level Panel cautions the following: “these figures need to be treated with caution especially as the Panel is very clear that these resource requirements neither should nor could be met by biodiversity finance alone. Additionally...there is potential for considerable synergies among the [Aichi] Targets. Thus, it is expected that co-ordinated action could substantially reduce the total estimate” (CBD, 2012d).

## ANNEX 2. KEY CBD TEXTS MANDATING THE PROVISION OF FINANCE FOR BIODIVERSITY

Reference	Title	Year	Key Action(s)
Article 20	Financial Resources	1992	Contracts Parties to provide financial resources for biodiversity, and in particular highlights the necessity for developed countries to provide <i>new and additional</i> financial and technical support for biodiversity to developing countries
Article 21	Financial Mechanism	1992	States that there will be a mechanism for the provision of financial resources to developing country Parties for purposes of this Convention on a grant or concessional basis. Note that the Global Environment Facility is now a key mechanism through which finance flows to support the Convention's objectives.
CBD COP 9 Decision IX/11	Review of implementation of Articles 20 and 21	2008	Establishes the Strategy for Resource Mobilization in Support of the Achievement of the Convention's Three Objectives for the Period 2008-2015
CBD COP 10 Decision X/3	Strategy for resource mobilization in support of the Convention's three objectives	2010	Identifies concrete activities, initiatives, targets to achieve the goals of the strategy for resource mobilisation, and indicators to monitor the implementation of strategy.
Strategic Plan for Biodiversity 2011-2020	Aichi Target 20	2010	States that "By 2020, at the latest, the mobilisation of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from current levels." (emphasis added)
CBD COP 11 Decision XI/4	Review of implementation of the strategy for resource mobilization, including the establishment of targets	2012	Sets the following targets, inter alia: (a) Double total biodiversity-related international financial resource flows to developing countries...by 2015, and at least [maintain] this level until 2020 (b) By 2015, at least 75% of Parties to have included biodiversity in their national priorities or development plans and have therefore made appropriate domestic financial provisions (c) By 2015, at least 75% of Parties have reported domestic biodiversity expenditures, as well as funding needs, gaps and priorities (d) By 2015, at least 75%, of Parties have prepared national financial plans for biodiversity, and 30% of those Parties have assessed and/or evaluated the values of biodiversity and its components.
CBD COP12	To add in when available	2014	



### **ANNEX 3. OECD DAC STATISTICS, RIO MARKER METHODOLOGY AND JOINT TASK TEAM**

#### **Defining ODA, OOF and Official Development Finance**

ODA is defined as flows to countries on the DAC List of ODA Recipients and to multilateral institutions provided by official or executive agencies. ODA must have the economic development and welfare of developing countries as its main objective, and be concessional in character - either flowing as grants or concessional loans (i.e. softer than market terms), estimated at a grant element of at least 25 % calculated at a discount rate of 10% (OECD 2008).

OOF comprises transactions from governments to developing countries that do not qualify as ODA, either because they are not primarily aimed at development, or because they are not sufficiently concessional, i.e. loans extended at market rates (OECD, 2013d). No members are marking OOF with the biodiversity Rio marker at present.

The DAC is working to modernise its statistical system for monitoring and measuring external development finance. Specifically, the DAC is looking to develop: a new measure of total official support for development to better capture donor effort; a new way of measuring recipient benefit; and a modernised ODA definition. Discussions are underway in the OECD DAC and it is expected that a new measure of “Total Official Support to Development” (a provisional term) would incorporate both ODA and OOF (OECD 2013e)

DAC members who report to the OECD DAC Creditor Reporting System are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, EU Institutions, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

#### **The Rio markers**

##### ***Background***

Since 1998 the DAC has monitored aid targeting the objectives of the Rio Conventions through its Creditor Reporting System (CRS) using the “Rio markers”. Data for years 1998-2006 were obtained on a trial basis; reporting became mandatory starting with 2007 flows. Every aid activity reported to the CRS should be screened and marked as either (i) targeting the Conventions as a 'principal objective' or a 'significant objective', or (ii) not targeting the objective. There are four Rio markers, covering: biodiversity, desertification, climate change mitigation, and climate change adaptation. The adaptation marker was introduced in 2010.

The Rio markers were designed to measure and monitor official development assistance targeting the objectives of the Rio Conventions, in order to track the degree to which members are integrating and mainstreaming environmental (e.g. biodiversity) considerations into their development co-operation activities, and to support members in preparing their National Communications or their National Reports to the Conventions. The markers therefore indicate donors' policy objectives in relation to each aid activity. Activities marked as having a “principal” biodiversity objective would not have been funded but for that objective; activities marked “significant” have other prime objectives but have been formulated or adjusted to help meet biodiversity concerns.

The Rio marker methodology allows for the identification of bilateral aid activities with biodiversity-related policy objectives, and gives an *approximate* quantification of financial flows targeting objectives of the Rio conventions, given the data reflects the full value of aid activities. In marker data presentations the figures for aid targeting biodiversity as a *principal* or *significant* objective should be shown separately and the sum referred to as the “estimate” or “upper bound” of climate-change-related aid. In reporting against quantified international finance goals, many DAC members draw on the Rio marker data, but in doing so many report only a proportion of aid targeting biodiversity as a *significant* objective, estimating this through applying coefficients to adjust the share of finance reported. However, there is no agreed or common approach for this practice, and some countries use alternative methodologies and not Rio marker data (OECD, forthcoming).

For more information on the Rio markers, including access to the data, an interactive data visualisation tool for biodiversity-related aid, and statistical flyers on biodiversity-related aid, please see our website, <http://oe.cd/RM>.

### ***Rio marker definition and criteria for eligibility for biodiversity-related aid***

**Biodiversity-related aid** is defined as activities that promote at least one of the three objectives of the Convention: the conservation of biodiversity, sustainable use of its components (ecosystems, species or genetic resources), or fair and equitable sharing of the benefits of the utilisation of genetic resources.

An activity can be marked with the biodiversity Rio marker if it contributes to:

- a) protection of or enhancing ecosystems, species or genetic resources through in-situ or ex-situ conservation, or remedying existing environmental damage; or
- b) integration of biodiversity and ecosystem services concerns within recipient countries' development objectives and economic decision making, through institution building, capacity development, strengthening the regulatory and policy framework, or research; or
- c) developing countries' efforts to meet their obligations under the Convention.

The activity will score “principal objective” if it directly and explicitly aims to achieve one or more of the above three criteria. For examples of typical activities, see <http://www.oecd.org/dac/stats/46782010.pdf>.

### ***The Joint Task Team on the Rio Markers***

A Joint Task Team<sup>12</sup> of the DAC Network on Environment and Development Co-operation (ENVIRONET) and Working Party on Development Finance Statistics (WP-STAT) on improvement of Rio markers, environment and development finance statistics was revived in November 2013. This collaboration focuses on the overarching goal to ensure that DAC methodologies and data remain the reference for the international community in measuring Official Development Assistance (ODA) and non-export credit Other Official Flows (OOF) related to climate change, biodiversity, desertification and other environmental concerns. This is being achieved through a programme of work over 2014-15 to undertake greater communication and outreach, reviewing options to improve the quality and robustness of the Rio markers (where practical and feasible), supporting international communities to clarify their information needs and to use or to build on the existing DAC data and systems, and to increase transparency and support greater accountability in reporting against the Rio Conventions. Three experts' meeting of the Joint Task Team have been held, in March<sup>13</sup>, June<sup>14</sup> and September<sup>15</sup> 2014. Additionally, a training workshop on accessing and using the Rio markers was held in September 2014<sup>16</sup>.

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<sup>12</sup> See "Terms of reference and scope of work for a Joint ENVIRONET and WP-STAT Task Team on Improvement of Rio markers, environment and development finance statistics", OLIS Ref: DCD(2013)/8/REV2. For further information please contact [Valerie.Gaveau@OECD.org](mailto:Valerie.Gaveau@OECD.org) and [Stephanie.Ockenden@OECD.org](mailto:Stephanie.Ockenden@OECD.org).

<sup>13</sup> [www.oecd.org/dac/environment-development/joint-tt-march-2014.htm](http://www.oecd.org/dac/environment-development/joint-tt-march-2014.htm)

<sup>14</sup> [www.oecd.org/dac/environment-development/joint-tt-june-2014.htm](http://www.oecd.org/dac/environment-development/joint-tt-june-2014.htm)

<sup>15</sup> [www.oecd.org/dac/environment-development/joint-tt-september-2014.htm](http://www.oecd.org/dac/environment-development/joint-tt-september-2014.htm)

<sup>16</sup> [www.oecd.org/dac/environment-development/training-workshop.htm](http://www.oecd.org/dac/environment-development/training-workshop.htm)